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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/470,284	12/22/1999	SCOTT PATRICK CAMPBELL	08305/062001	5973

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EXAMINER	
SELBY, GEVELL V	
ART UNIT	**PAPER NUMBER**
2615	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/470,284	CAMPBELL, SCOTT PATRICK	
	Examiner	Art Unit	
	Gevell Selby	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,11-17,26,28,29,52-56 and 61-63* is/are pending in the application.

4a) Of the above claim(s) *7-9,26,29,55 and 56* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,11-17,28,31,52-54 and 61-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 December 1999* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/22/05 have been fully considered but they are not persuasive. The applicant submits the prior art does not disclose the following limitations of the claimed invention:

1) "a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure" as claimed in claim 1;

2) "securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure" as claimed in claims 28 and 52. The Examiner respectfully disagrees.

Examiner's Reply:

Re claims 1, 28 and 52) The Beaman reference discloses a cover for an image sensor array and method of making an image sensor array having a cover plate comprising: a mounting structure (see figure 6, element 60: The lens elements (62) are held in a mounting structure (assembly 40) attached to the glass cover 25) extending from an upper surface of the plate (25) and adapted to secure a prefabricated lens system (62) to the plate. The plate (54) of the Bauer reference discloses the plurality of surfaces forming a lens structure. By combining the mounting structure of the Beaman reference onto the plate of the Bauer reference, the combination discloses a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure. It would have been obvious to one of ordinary skill in the art at the time of invention to make such a combination in order to

extend the range that the image sensor can photograph while maintaining a compact imaging system with low cost. By teaching to combine the mounting structure of the lens arrangement (62) with the assembly (40) to provide an arrangement that is smaller and has fewer interfaces does not teach away from securing the mounting structure to the plate, but rather, teaches to secure the plate, thus making the assembly even smaller with fewer interfaces. Figure 6 further discloses this feature. Therefore, the combination of Bauer in view of Beaman discloses all the claim limitations of claims 1-6, 11-17, 28, 31, and 52-54.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 62 and 63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 62 and 63 provide for the use of "adapted to removably secure the prefabricated lens system", but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 62 and 63 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for

example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6 11-13, 28, 31, 52-54, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532.

In regard to claim 1, Bauer et al, US 6,130,448, discloses a cover for an image sensor array, the cover comprising:

> a plate (54) formed of substantially transparent material (see column 5, lines 56-57 and column 6, lines 44-45) and secured adjacent to an upper surface of and covering the image sensor array (see figure 3), said sensor array being sealed by said plate (see column 5, lines 63-65), said plate having a plurality of surfaces forming a lensing structure, such that at least one of said plurality of surfaces is contoured into a lensing surface capable of changing imaging characteristics (see figure 3 and column 6, lines 42-50).

The Bauer reference does not disclose a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure.

Beaman et al., US 5,821,532, discloses a cover for an image sensor array with a mounting structure (see figure 6, element 60: The lens elements (62) are held in a mounting structure (assembly 40) attached to the glass cover 25) extending from an upper surface of the plate (25) and adapted to secure a prefabricated lens system (62) to the plate (see figure 6 and column 3, lines 40-55).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, to have a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure, in order to extend the range that the image sensor can photograph while maintaining a compact imaging system with low cost.

In regard to claim 2, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 1. The Bauer reference discloses wherein said plate is made of a transparent material which is one of glass, plastic, or plexiglass, said plate being transparent over all, or a substantial portion of, the image sensor array (see column 5, lines 56-57 and figure 3).

In regard to claim 3, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 1. The Bauer reference discloses wherein said lensing structure is made of at least one lensing element, said lensing structure covering all or a substantial portion of the image sensor array, such that said at least one lensing element is formed on the lensing surface (see figure 3, column 6, lines 42-50).

In regard to claim 4, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 3. The Bauer reference discloses wherein said at least one lensing element is a refractive lensing element in that a lensing element is inherently refractive when allowing light to pass through.

In regard to claim 5, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 4 The Beaman reference wherein said refractive lensing element includes a concave lens (see figure 6).

In regard to claim 6, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 4. The Bauer reference discloses wherein said refractive lensing element includes a convex lens (see figure 3).

In regard to claim 11, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 4. The Beaman reference discloses wherein said lensing structure also includes an alignment mark (hole pattern), formed on the lensing surface, to guide the prefabricated lens system being attached to the plate (see column 1, lines 49-56).

In regard to claim 12, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 4. The Bauer reference discloses wherein said mounting structure is formed by a mesa-like protrusion on the lensing surface (see figure 3).

In regard to claim 13, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 4. The Beaman reference does not disclose

wherein said mounting structure is formed by a ringed-wall structure having an inside wall and an outside wall, said ringed-wall structure formed on the lensing surface.

The Official Notice taken in the previous office action stating that is well known in the art to use a circular or ringed shape for an optics assembly in order to easily hold and rotate the barrel to adjust the positions of the lens is taken as prior art. Since the applicant has not timely traversed the old and well known statement, the above is now considered admitted prior art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify the combination of Bauer and Beaman to have the mounting structure formed by a ringed-wall structure having an inside wall and an outside wall, said ringed-wall structure formed on the lensing surface in order to easily hold and rotate the barrel to adjust the positions of the lens.

In regard to claim 28, Bauer et al, US 6,130,448, discloses a method of making an image sensor array having a lensing cover plate, the method comprising:

forming a lensing structure on a lensing surface of a flat, substantially transparent cover plate by contouring said lensing surface of the cover plate into a lensing element to form said lensing cover plate (see figure 3 and column 6, lines 42-50); and

covering an image sensor array with said lensing cover plate such that said image sensor array is sealed by said cover plate (see column 5, lines 63-65).

The Bauer reference does not disclose securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate above the lensing structure.

Beaman et al., US 5,821,532, discloses a cover for an image sensor array with a mounting structure (see figure 6, element 60: The lens elements (62) are held in a mounting structure (assembly 40) attached to the glass cover 25) extending from an upper surface of the plate (25) and adapted to secure a prefabricated lens system (62) to the plate (see figure 6 and column 3, lines 40-55).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, to secure a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure, in order to extend the range that the image sensor can photograph while maintaining a compact imaging system with low cost.

In regard to claim 31, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the method of claim 28. The Bauer reference discloses wherein said lensing structure and said cover plate are rejection molded as a single-piece structure (see figure 3).

In regard to claim 52, Bauer et al, US 6,130,448, discloses a method of making a camera system, comprising:

contouring a portion of a flat cover plate to form a cover plate having a lensing structure (see figure 3 and column 6, lines 42-50);

covering an imaging array with said cover plate, said cover plate being placed in an optical path of said camera system (see figure 3); and

bonding the cover plate to an assembly to seal the imaging array (see column 5, lines 63-65).

The Bauer reference does not disclose securing a mounting structure to an upper surface of the plate, said mounting structure being adapted to connect a prefabricated lens system to the plate mounting above the lensing structure.

Beaman et al., US 5,821,532, discloses a cover for an image sensor array with a mounting structure (see figure 6, element 60: The lens elements (62) are held in a mounting structure (assembly 40) attached to the glass cover 25) extending from an upper surface of the plate (25) and adapted to secure a prefabricated lens system (62) to the plate (see figure 6 and column 3, lines 40-55).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, to secure a mounting structure extending from an upper surface of the plate and adapted to secure a prefabricated lens system to the plate above the lensing structure, in order to extend the range that the image sensor can photograph while maintaining a compact imaging system with low cost.

In regard to claim 53, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the method as in claim 52, wherein contouring the cover plate to form the lensing structure includes forming at least one of a refractive lens in that a lensing element by definition is inherently refractive when allowing light to pass through.

In regard to claim 54, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the method as in claim 52. The Bauer reference discloses wherein covering the imaging array with said cover plate includes locating said cover plate adjacent said imaging array (see figure 3).

In regard to claims 61, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover and method as in claim 1. It is inherent that the mounting structure extending from the upper surface of the plate can be adapted to removably secure the prefabricated lens system to the plate above the lensing structure, because the claim sates a use of the structure disclosed.

3. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, as applied to claim 4 above, and further in view of Ogihara, US 3,620,149.

In regard to claim 14, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, discloses the cover of claim 13. The Bauer and Beaman references do not disclose comprising a threaded retaining ring on the inside wall for attaching the prefabricated lens system to the plate.

Ogihara, US 3,620,149, discloses a threaded type coupling device for coupling a lens barrel with a camera body wherein a threaded retaining ring (32) on the inside wall of the mounting structure is used for firmly attaching the additional lensing element (lens barrel) to the mounting structure (see fig 1).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Bauer et al, US 6,130,448, in view of

Beaman et al., US 5,821,532, and further in view of Ogihara, US 3,620,149, to have a threaded retaining ring on the inside wall for attaching the prefabricated lens system to the plate, in order to make the lens system easily detachable providing for a more versatile camera by using multiple lens systems on one camera.

In regard to claim 15, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, and further in view of Ogihara, US 3,620,149, discloses the cover of claim 13. The Ogihara reference discloses a threaded retaining ring on the outside wall for attaching the prefabricated lens system to the plate (see figure 1, element 42).

In regard to claim 16, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, and further in view of Ogihara, US 3,620,149, discloses the cover of claim 13. The Beaman reference discloses wherein said mounting structure is formed by a well-like depression on the lensing surface(see figure 6: It is implied that there is a depression on the cover plate in order to secure the optical system to it.)

In regard to claim 17, Bauer et al, US 6,130,448, in view of Beaman et al., US 5,821,532, and further in view of Ogihara, US 3,620,149, discloses the cover of claim 16. It would have been obvious to one of ordinary skill in the art to configure the lensing surface of the Beaman reference to have grooves as in the Ogihara reference to receive and secure the optical system into place, in order to make the lens system easily detachable providing for a more versatile camera by using multiple lens systems on one camera.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gvs

DAVID L. OMETZ
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